



## DEPARTMENT OF THE INTERIOR

### Fish and Wildlife Service

#### 50 CFR Part 17

[FF09E21000 FXES11110900000 212]

### Endangered and Threatened Wildlife and Plants; 17 Species Not Warranted for Listing as Endangered or Threatened Species

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Notification of findings.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), announce findings that 17 species are not warranted for listing as endangered or threatened species under the Endangered Species Act of 1973, as amended (Act). After a thorough review of the best available scientific and commercial information, we find that it is not warranted at this time to list Amargosa tryonia (*Tryonia variegata*), Ash Meadows pebblesnail (*Pyrgulopsis erythropoma*), boat-shaped bugseed (*Corispermum navicula*), Burrington jumping-slug (*Hemphillia burringtoni*), crystal springsnail (*Pyrgulopsis crystalis*), Dalles sideband (*Monadenia fidelis minor*), distal-gland springsnail (*Pyrgulopsis nanus*), early dark blue butterfly (*Euphilotes ancilla purpura*), Fairbanks springsnail (*Pyrgulopsis fairbanksensis*), late dark blue butterfly (*Euphilotes ancilla cryptica*), median-gland springsnail (*Pyrgulopsis pisteri*), minute tryonia (*Tryonia ericae*), Point of Rocks tryonia (*Tryonia elata*), southern rubber boa (*Charina umbratica*), southwest Nevada pyrg (*Pyrgulopsis turbatrix*), sportinggoods tryonia (*Tryonia angulata*), and Virgin spinedace (*Lepidomeda mollispinis mollispinis*). However, we ask the public to submit to us at any time any new information relevant to the status of any of the species mentioned above or their habitats.

**DATES:** The findings in this document were made on [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** Detailed descriptions of the bases for these findings are available on the Internet at <http://www.regulations.gov> under the following docket numbers:

Species	Docket Number
Amargosa tryonia	FWS-R8-ES-2021-0077
Ash Meadows pebblesnail	FWS-R8-ES-2021-0078
boat-shaped bugseed	FWS-R6-ES-2021-0079
Burrington jumping-slug	FWS-R1-ES-2021-0080
crystal springsnail	FWS-R8-ES-2021-0081
Dalles sideband	FWS-R1-ES-2021-0082
distal-gland springsnail	FWS-R8-ES-2021-0083
early dark blue butterfly	FWS-R8-ES-2021-0084
Fairbanks springsnail	FWS-R8-ES-2021-0085
late dark blue butterfly	FWS-R8-ES-2021-0086
median-gland springsnail	FWS-R8-ES-2021-0087
minute tryonia	FWS-R8-ES-2021-0088
Point of Rocks tryonia	FWS-R8-ES-2021-0089
southern rubber boa	FWS-R8-ES-2015-0119
southwest Nevada pyrg	FWS-R8-ES-2021-0090
sportinggoods tryonia	FWS-R8-ES-2021-0091
Virgin spinedace	FWS-R6-ES-2015-0121

Those descriptions are also available by contacting the appropriate person as specified under **FOR FURTHER INFORMATION CONTACT**. Please submit any new information, materials, comments, or questions concerning this finding to the appropriate person, as specified under **FOR FURTHER INFORMATION CONTACT**.

**FOR FURTHER INFORMATION CONTACT:**

Species	Contact Information
Amargosa tryonia	Glen Knowles, Field Supervisor, Southern Nevada Fish and Wildlife Office, (702) 515-5244
Ash Meadows pebblesnail	
crystal springsnail	
distal-gland springsnail	
Fairbanks springsnail	
median-gland springsnail	
minute tryonia	
Point of Rocks tryonia	
southwest Nevada pyrg	
sportinggoods tryonia	
early dark blue butterfly	
late dark blue butterfly	

boat-shaped bugseed	Ann Timberman, Field Supervisor, Colorado Field Office, (970) 628–7181
Burrington jumping-slug	Brad Thompson, State Supervisor, Washington Fish and Wildlife Office, (360) 753–9440
Dalles sideband	Paul Henson, State Supervisor, Oregon Fish and Wildlife Office, (503) 231–6179
southern rubber boa	Scott Sobiech, Field Supervisor, Carlsbad Fish and Wildlife Office, (760) 431–9440
Virgin spinedace	Yvette Converse, Field Supervisor, Utah Field Office, (801) 975–3330

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## **SUPPLEMENTARY INFORMATION:**

### **Background**

Under section 4(b)(3)(B) of the Act (16 U.S.C. 1531 *et seq.*), we are required to make a finding whether or not a petitioned action is warranted within 12 months after receiving any petition for which we have determined contains substantial scientific or commercial information indicating that the petitioned action may be warranted (“12-month finding”). We must make a finding that the petitioned action is: (1) Not warranted; (2) warranted; or (3) warranted, but precluded by other listing activity. We must publish a notification of these 12-month findings in the *Federal Register*.

### **Summary of Information Pertaining to the Five Factors**

Section 4 of the Act (16 U.S.C. 1533) and the implementing regulations at part 424 of title 50 of the Code of Federal Regulations (50 CFR part 424) set forth procedures for adding species to, removing species from, or reclassifying species on the Lists of Endangered and Threatened Wildlife and Plants (Lists). The Act defines “species” as including any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature. The Act defines “endangered species” as any species that is in danger of extinction throughout all or a significant portion of its range (16 U.S.C. 1532(6)), and “threatened species” as any species that is likely to become an endangered species

within the foreseeable future throughout all or a significant portion of its range (16 U.S.C. 1532(20)). Under section 4(a)(1) of the Act, a species may be determined to be an endangered species or a threatened species because of any of the following five factors:

- (A) The present or threatened destruction, modification, or curtailment of its habitat or range;
- (B) Overutilization for commercial, recreational, scientific, or educational purposes;
- (C) Disease or predation;
- (D) The inadequacy of existing regulatory mechanisms; or
- (E) Other natural or manmade factors affecting its continued existence.

These factors represent broad categories of natural or human-caused actions or conditions that could have an effect on a species' continued existence. In evaluating these actions and conditions, we look for those that may have a negative effect on individuals of the species, as well as other actions or conditions that may ameliorate any negative effects or may have positive effects.

We use the term “threat” to refer in general to actions or conditions that are known to or are reasonably likely to negatively affect individuals of a species. The term “threat” includes actions or conditions that have a direct impact on individuals (direct impacts), as well as those that affect individuals through alteration of their habitat or required resources (stressors). The term “threat” may encompass—either together or separately—the source of the action or condition or the action or condition itself. However, the mere identification of any threat(s) does not necessarily mean that the species meets the statutory definition of an “endangered species” or a “threatened species.” In determining whether a species meets either definition, we must evaluate all identified threats by considering the expected response by the species, and the effects of the threats—in light of those actions and conditions that will ameliorate the threats—on an individual, population, and species level. We evaluate each threat and its expected effects on the species, then analyze the cumulative effect of all of the threats on the species as a whole. We also

consider the cumulative effect of the threats in light of those actions and conditions that will have positive effects on the species, such as any existing regulatory mechanisms or conservation efforts. The Secretary determines whether the species meets the Act's definition of an "endangered species" or a "threatened species" only after conducting this cumulative analysis and describing the expected effect on the species now and in the foreseeable future.

The Act does not define the term "foreseeable future," which appears in the statutory definition of "threatened species." Our implementing regulations at 50 CFR 424.11(d) set forth a framework for evaluating the foreseeable future on a case-by-case basis. The term "foreseeable future" extends only so far into the future as the Service can reasonably determine that both the future threats and the species' responses to those threats are likely. In other words, the foreseeable future is the period of time in which we can make reliable predictions. "Reliable" does not mean "certain"; it means sufficient to provide a reasonable degree of confidence in the prediction. Thus, a prediction is reliable if it is reasonable to depend on it when making decisions.

It is not always possible or necessary to define foreseeable future as a particular number of years. Analysis of the foreseeable future uses the best scientific and commercial data available and should consider the timeframes applicable to the relevant threats and to the species' likely responses to those threats in view of its life-history characteristics. Data that are typically relevant to assessing the species' biological response include species-specific factors such as lifespan, reproductive rates or productivity, certain behaviors, and other demographic factors.

In conducting our evaluation of the five factors provided in section 4(a)(1) of the Act to determine whether Amargosa tryonia, Ash Meadows pebblesnail, Burrington jumping-slug, crystal springsnail, Dalles sideband, distal-gland springsnail, early dark blue butterfly, Fairbanks springsnail, late dark blue butterfly, median-gland springsnail, minute tryonia, Point of Rocks tryonia, southern rubber boa, southwest Nevada pyrg, sportinggoads tryonia, or Virgin spinedace meet the Act's definition of "endangered species" or "threatened species," we considered and

thoroughly evaluated the best scientific and commercial information available regarding the past, present, and future stressors and threats. In conducting our taxonomic evaluation of boat-shaped bugseed, we determined that it does not meet the definition of a “species” under the Act, and, as a result, we concluded that boat-shaped bugseed is not a listable entity. We reviewed the petitions, information available in our files, and other available published and unpublished information for all of these species. Our evaluation may include information from recognized experts; Federal, State, and Tribal governments; academic institutions; foreign governments; private entities; and other members of the public.

The species assessment forms for these species contain more detailed biological information, a thorough analysis of the listing factors, a list of literature cited, and an explanation of why we determined that these species do not meet the Act’s definition of an “endangered species” or a “threatened species.” A thorough review of the taxonomy, life history, and ecology of the Amargosa tryonia, Ash Meadows pebblesnail, Burrington jumping-slug, crystal springsnail, Dalles sideband, distal-gland springsnail, early dark blue butterfly, Fairbanks springsnail, late dark blue butterfly, median-gland springsnail, minute tryonia, Point of Rocks tryonia, southern rubber boa, southwest Nevada pyrg, sportinggoods tryonia, and Virgin spinedace is presented in the species’ Species Status Assessment reports. The species assessment form for boat-shaped bugseed contains more detailed taxonomic information, a list of literature cited, and an explanation of why we determined that boat-shaped bugseed does not meet the Act’s definition of a “species.” This supporting information can be found on the Internet at <http://www.regulations.gov> under the appropriate docket number (see **ADDRESSES**, above). The following are informational summaries for the findings in this document.

*Amargosa Tryonia, Ash Meadows Pebblesnail, Crystal Springsnail, Distal-gland Springsnail, Fairbanks Springsnail, Median-gland Springsnail, Minute Tryonia, Point of Rocks Tryonia, Southwest Nevada Pyrg, and Sportinggoods Tryonia*

Previous Federal Actions

On February 17, 2009, we received a petition from the Center for Biological Diversity (CBD) requesting that the Service list 42 species of springsnails from the Great Basin and Mojave ecosystems in Nevada, Utah, and California as endangered or threatened species, and designate critical habitat for the springsnails. The petition included Amargosa tryonia, Ash Meadows pebblesnail, crystal springsnail, distal-gland springsnail, Fairbanks springsnail, median-gland springsnail (as “median gland Nevada pyrg”), minute tryonia, Point of Rocks tryonia, southwest Nevada pyrg (as “southeast Nevada pyrg”), and sportinggoods tryonia. On September 13, 2011, we published in the *Federal Register* (76 FR 56608) a 90-day finding in which we announced that the petition contained substantial information indicating listing of 32 of the petitioned species, including these 10 springsnails, may be warranted. This document announces the 12-month finding on the February 17, 2009, petition to list the Amargosa tryonia, Ash Meadows pebblesnail, crystal springsnail, distal-gland springsnail, Fairbanks springsnail, median-gland springsnail, minute tryonia, Point of Rocks tryonia, southwest Nevada pyrg, and sportinggoods tryonia under the Act.

#### Summary of Finding

The 10 springsnail species are in the genus *Pyrgulopsis* or *Tryonia* of the Cochliopidae family. In general, the 10 species are morphologically similar with hardened shells and soft anatomy, and they are differentiated based on subtle morphological characteristics. They are small in size, only a few millimeters in length and width, and have limited ability or tendency to move. These springsnails are herbivores or detritivores that primarily graze on the periphyton (freshwater organisms attached or clinging to plants) of exposed surfaces of aquatic plants and substrates in the small springs they inhabit. Nine of the springsnails occur in desert aquifer springs comprised of small aquatic and riparian systems as surface flow maintained by groundwater; each spring is uniquely influenced by aquifer geology, morphology, discharge rates, and regional precipitation. The southwest Nevada pyrg occurs in desert springs that are

primarily perennial mountain block aquifer springs that are less likely to be influenced by groundwater withdrawals.

All of the species excluding the southwest Nevada pyrg occur only on Ash Meadows National Wildlife Refuge (NWR) in the Amargosa Valley (Amargosa Desert Hydrographic Area) in Nye County, Nevada. However, additional surveys are necessary to determine if Amargosa tryonia occurs in more locations on the refuge and on private lands in Shoshone and Tecopa, California. In contrast, the southwest Nevada pyrg is widespread across southeastern California (Inyo and San Bernardino Counties) and southwestern Nevada (Nye and Clark Counties). Spring conditions that are most critical in influencing the resource needs of all life stages of the 10 springsnails include water quality (e.g., appropriate water temperature, dissolved oxygen levels, conductivity, pH), presence of aquatic vegetation and appropriate substrate (both of which can be variable), the continuity of free-flowing water, and adequate spring discharge.

We carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to the springsnails, and we evaluated all relevant factors under the five listing factors, including any regulatory mechanisms and conservation measures addressing these threats. Historically and through to the present, the 10 springsnail species and their habitats were impacted to varying degrees by one or more of the following threats: predation and competition, vegetation and soil disturbance, spring modification, and groundwater pumping. Sources of these threats include invasive, nonnative and native species; roads; wildfire; grazing and browsing by ungulates; recreation; herbicides; and human development. The primary threat currently and into the future is spring modifications resulting from potential groundwater pumping or altered precipitation/temperature from climate change, both of which could affect the availability of adequate water and flow. The species' locations are as follows:

- Amargosa tryonia currently occurs in 12 spring locations (some of which are comprised of multiple, clustered springs described as spring provinces). The majority of these



spring locations are found within protected lands on Ash Meadows NWR (11 locations), with the remaining location at Devils Hole at Death Valley National Park.

- Ash Meadows pebblesnail currently occurs on Ash Meadows NWR in the large Kings Pool and at four small, clustered springs within the Point of Rocks Spring Province.

- Crystal springsnail occurs in a single desert spring known as the Crystal Spring on Ash Meadows NWR.

- Distal-gland springsnail currently occurs on Ash Meadows NWR in the following three springs/spring provinces that are centrally located on the refuge: Collins Ranch Spring, Five Springs Province, and Mary Scott Spring.

- Fairbanks springsnail occurs in a single desert spring known as the Fairbanks Spring on Ash Meadows NWR.

- Median-gland springsnail is centrally located in the Warm Springs area of Ash Meadows NWR in three springs (Marsh Spring, North Scruggs Spring, and School Spring).

- Minute tryonia occurs in a single desert spring known as North Scruggs Spring within the Warm Springs area of Ash Meadows NWR.

- Point of Rocks tryonia occurs on Ash Meadows NWR within the Point of Rocks Spring Province, which is comprised of six small, geographically clustered springs, four of which are occupied by the species.

- Sportinggoods tryonia is located within three large springs on the Ash Meadows NWR (Big Spring, Crystal Pool, and Fairbanks Pool).

- Southwest Nevada pyrg occurs within 36 springs or spring provinces in 8 different geographic areas (9 different hydrologic subbasins, which are analogous to medium-sized river basins) in southwest Nevada and southeast California. Spring locations and ownership across its range include primarily Federal lands at Death Valley National Park, Bureau of Land Management lands (Red Rock Canyon National Conservation Area, Darwin Falls Wilderness, Argus Range Wilderness, Surprise Canyon Wilderness, Pleasant Canyon), U.S. Forest Service

lands (Spring Mountains National Recreation Area, Big Bear Lake Range Station and Mill Creek Canyon in the San Bernardino National Forest), Department of Defense lands (China Lake Naval Weapons Center), and private lands in both Nevada and California.

The best available information indicates an overall high likelihood that the 10 springsnails will continue to maintain resilient populations in the foreseeable future given the significant conservation afforded to them across the majority of the springs/populations, no information suggesting new groundwater pumps or increased impacts from groundwater pumping compared to current levels, and climate models showing increased precipitation into the future across the species' ranges. Coupled with aquifer rate of recharge information, there is a high likelihood that adequate levels of water and flow (as well as the other resource needs of the species) would be available in the foreseeable future. We considered these primary threats cumulatively with the additional non-primary threats described above (e.g., invasive species), in our determination.

Therefore, we find that listing the Amargosa tryonia, Ash Meadows pebblesnail, crystal springsnail, distal-gland springsnail, Fairbanks springsnail, median-gland springsnail, minute tryonia, Point of Rocks tryonia, southwest Nevada pyrg, and sportinggoods tryonia as endangered species or threatened species under the Act is not warranted. Furthermore, we did not find any evidence of a concentration of threats at a biologically meaningful scale in any portion of the species' range. A detailed discussion of the basis for this finding can be found in the species assessment forms for these 10 species and other supporting documents (see **ADDRESSES**, above).

#### *Boat-shaped Bugseed*

#### Previous Federal Actions

On July 30, 2007, the Service received a petition from Forest Guardians (now WildEarth Guardians) requesting that the Service list 206 species the Mountain-Prairie Region, including the boat-shaped bugseed (formerly *Corispermum navicula*), as endangered or threatened species,

and designate critical habitat, under the Act.

On August 18, 2009, the Service published a 90-day finding (74 FR 41649) indicating that listing may be warranted for 29 species, including the boat-shaped bugseed. As a result, the Service initiated a status review for the boat-shaped bugseed. This document announces the 12-month finding on the July 30, 2007, petition to list the boat-shaped bugseed under the Act.

#### Summary of Finding

We have carefully assessed the best scientific and commercial information available regarding the boat-shaped bugseed and evaluated the petition's claims that the species warrants listing under the Act. Genetic and morphometric analyses indicate that the boat-shaped bugseed is not a distinct species or subspecies. The boat-shaped bugseed is not genetically or morphologically distinguishable from other bugseeds, including the more wide-ranging American bugseed (*C. americanum*). Therefore, the boat-shaped bugseed is not a valid taxonomic entity, does not meet the definition of a "species" under the Act, and, as a result, does not warrant listing under the Act. A detailed discussion of the basis for this finding can be found in the boat-shaped bugseed species assessment form and other supporting documents (see **ADDRESSES**, above).

#### *Burrington Jumping-slug*

#### Previous Federal Actions

On March 17, 2008, we received a petition from CBD, Conservation Northwest, the Environmental Protection Information Center, the Klamath-Siskiyou Wildlands Center, and Oregon Wild, requesting that the Service list 32 species and subspecies of mollusks in the Pacific Northwest, including the Burrington jumping-slug, as endangered or threatened species under the Act. The petition also requested that the Service designate critical habitat concurrent with listing. On October 5, 2011, the Service published a 90-day finding that the petition presented substantial scientific or commercial information indicating that Burrington jumping-slug (also known as the "keeled jumping-slug") may be warranted for listing (76 FR 61826). This

document announces the 12-month finding on the March 17, 2008, petition to list the Burrington jumping-slug under the Act.

#### Summary of Finding

Burrington jumping-slugs are small terrestrial gastropods that range throughout the western portions of British Columbia, Washington, and Oregon. The species is known from approximately 2,350 records, most of which are a result of surveys conducted prior to vegetation management, thinning, and timber projects on Federal lands. In British Columbia, documented Burrington jumping-slug occurrences are limited to the southern portion of Vancouver Island. In Washington, they occur on the Olympic Peninsula and along the Pacific coast. In Oregon, they occur primarily in the Coast Range.

The species inhabits moist, cool, and shady forest floors where there is sufficient shade and downed, decaying logs and leaf litter. They are found in a variety of forest types including dense old-growth rainforests, riparian areas, late-successional and old-growth coniferous forests, mixed coniferous forests, and areas densely forested with Pacific dogwood (*Cornus nuttallii*). Red alder (*Alnus rubra*), bigleaf maple (*Acer macrophyllum*), vineleaf maple (*Acer circinatum*), and Pacific dogwood are consistently associated with the understory and mid-story components of suitable habitat for the species.

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to the Burrington jumping-slug, and evaluated all relevant factors under the five listing factors, including any regulatory mechanisms and conservation measures addressing these stressors. The primary stressors affecting the Burrington jumping-slug's biological status include habitat loss and fragmentation due to forest management and development, and climate-mediated changes in temperature and wildfire risk. Currently, the species has more than 50 populations in good or moderate condition that are distributed across its historical range and occupy a diversity of ecological settings. The projected effects of habitat loss, rising temperatures, and increased fire risk are likely to reduce the number of populations in

good or moderate condition and lead to some additional extirpations of populations. However, due to the number and spatial heterogeneity of remaining populations, the species is projected to maintain adequate levels of resiliency. Given the species' continued widespread distribution and its ecological and genetic diversity, we project that it will also maintain adequate redundancy and representation rangewide in the foreseeable future. Furthermore, we did not find any evidence of a concentration of threats at any biologically meaningful scale in any portion of the species' range.

Therefore, we find that listing the Burrington jumping-slug as an endangered species or threatened species under the Act is not warranted. A detailed discussion of the basis for this finding can be found in the Burrington jumping-slug SSA report and other supporting documents (see **ADDRESSES**, above).

#### *Dalles Sideband*

##### Previous Federal Actions

On March 17, 2008, we received a petition from CBD, Conservation Northwest, the Environmental Protection Information Center, the Klamath-Siskiyou Wildlands Center, and Oregon Wild, requesting that the Service list 32 species and subspecies of mollusks in the Pacific Northwest, including the Dalles sideband, as endangered or threatened under the Act. The petition also requested that the Service designate critical habitat concurrent with listing. On October 5, 2011, the Service published a 90-finding that the petition presented substantial scientific or commercial information indicating that the Dalles sideband may be warranted for listing (76 FR 61826). To inform our status review, we completed an SSA for the Dalles sideband. This document announces the 12-month finding on the March 17, 2008, petition to list the Dalles sideband under the Act.

##### Summary of Finding

The Dalles sideband is a small, terrestrial snail that is a subspecies of the Pacific sideband snail (*Monadenia fidelis*), with a known range east of the Cascade Mountains in Oregon and

Washington, primarily along the Columbia River corridor, extending east to the mouth of the John Day River. Occurrences have been documented near The Dalles, Oregon, with more recent detections on the Mount Hood National Forest in Oregon and the Gifford Pinchot National Forest in Washington. The Dalles sideband has been identified in Wasco, Hood River, and Sherman Counties in Oregon, and Skamania, Lewis, and Klickitat Counties in Washington. The majority of known occurrences are a result of surveys conducted prior to vegetation management, thinning, and timber projects on Federal lands.

The Dalles sideband inhabits forested environments, particularly those near talus slopes and/or in areas containing a high concentration of woody debris, leaves, or other refugia. They also live in cool, moist areas near springs and riparian areas. While the specific diet of the Dalles sideband is not known, other members of its genus feed on various plant material, roots, fungus, microorganisms, and other organic matter.

We carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to the Dalles sideband, and we evaluated all relevant factors under the five listing factors, including any regulatory mechanisms and conservation measures addressing these stressors. The primary stressors affecting the Dalles sideband's biological status include habitat loss and fragmentation due to forest management, and the climate-mediated risk of drought and wildfire. Currently, the subspecies is known from 23 resiliency units (delineated from 174 occurrence records), the majority of which are in high condition, with the remainder in moderate condition. These resiliency units are distributed across the historical range of the subspecies and occupy a diversity of ecological settings. We considered three plausible future scenarios that included projected changes in forest management, and the risk of drought and wildfire, as influenced by climate change, and how these threats would impact Dalles sideband habitat and population connectivity. We determined that these threats are likely to reduce the number of Dalles sideband populations in high or moderate condition, and may lead to some populations becoming extirpated in the future. However, our analysis indicates that even with the

projected decline in habitat quality, and by proxy the populations, the subspecies will maintain adequate levels of resiliency across most remaining populations, and adequate redundancy and representation rangewide, to maintain the subspecies' viability in the foreseeable future.

Therefore, we find that listing the Dalles sideband as an endangered or threatened species under the Act is not warranted. Furthermore, we did not find any evidence of a concentration of threats at a biologically meaningful scale in any portion of the species' range. A detailed discussion of the basis for this finding can be found in the Dalles sideband species assessment form and other supporting documents (see **ADDRESSES**, above).

#### *Early Dark Blue Butterfly and Late Dark Blue Butterfly*

##### Previous Federal Actions

On October 6, 2011, we received a petition, dated September 30, 2011, from WildEarth Guardians to list the two dark blue butterfly subspecies as endangered or threatened under the Act. On August 7, 2012, we published a 90-day finding stating that the petition presented substantial information indicating that listing the dark blue butterflies (as "two Spring Mountains dark blue butterflies") may be warranted (77 FR 47003). This document announces our 12-month finding on the September 30, 2011, petition to list the two dark blue butterfly subspecies.

##### Summary of Finding

The Spring Mountains dark blue butterflies are two subspecies of the Ancilla dotted blue butterfly (*Euphilotes ancilla*) found in the Spring Mountains in Clark County in southwestern Nevada. The two subspecies have no widely recognized common names, so we refer to them as the early subspecies (*E. a. purpura*) and the late subspecies (*E. a. cryptica*) to coincide with their respective flight periods.

The Spring Mountains dark blue butterflies are distributed across the Spring Mountains above an elevation of 1,600 meters (5,250 feet). The late dark blue butterfly is distributed throughout the Spring Mountains, and the early dark blue butterfly has a narrower range restricted to the northern third of the Spring Mountains. The two subspecies overlap with each

other in three locations in this part of their range. The early dark blue butterfly has a flight period from May to June, and the late dark blue butterfly has a flight period from late June to early September. Both subspecies use varieties of sulphur-flowered buckwheats (*Eriogonum umbellatum*) as their host plants.

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to the early and late dark blue butterflies, and we evaluated all relevant factors under the five listing factors, including any regulatory mechanisms and conservation measures addressing these threats. The primary threats affecting both the early and the late dark blue butterflies' biological status include fire, herbivory of host plants, drought, and climate change. If the magnitude or frequency of fire increased with less time for habitat to recover, the effects of fire on dark blue butterflies and their habitat could become more severe. However, current models show that fire risk in the Spring Mountains is moderate to low, and we do not have any information that fires will increase in magnitude into the foreseeable future. As a result of climate change in the Spring Mountains, droughts could become more frequent, and host plants will likely shift upward in elevation. However, both subspecies of dark blue butterfly already occur at a wide elevational range, which may allow them to respond by moving upslope to more favorable areas. Adult dark blue butterflies are capable of finding diffuse and small patches of flowers, which allows them to match with habitat over a wide range of elevations, allowing for survival during climatic fluctuations. Additionally, although herbivory by native species and feral horses is occurring at most dark blue butterfly locations, the magnitude of impacts is low.

Currently, all 9 populations of early dark blue butterflies and 30 of 33 populations of late dark blue butterflies are experiencing low or moderate exposure to threats. In all future scenarios, we expect that populations will continue to experience only low or moderate levels of threat in the foreseeable future. In scenarios for the two subspecies, the resiliency, redundancy, and representation of both may decrease depending on the severity of climate change as the risk of



drought and catastrophic fires increases the potential for population extirpation. The early dark blue butterfly is at greater risk because it occurs at only nine locations. However, dark blue butterflies display adaptive capacity in their ability to recolonize areas following disturbance, and as previously discussed, they likely have the ability to shift upslope in response to climate change. Overall, even if some reductions occur, we expect that the subspecies will maintain enough viability that they will not be likely to be endangered in the foreseeable future.

Therefore, we find that listing the early dark blue butterfly as an endangered species or threatened species under the Act is not warranted. We also find that listing the late dark blue butterfly as an endangered species or threatened species under the Act is not warranted. Furthermore, we did not find any evidence of a concentration of threats at a biologically meaningful scale in any portion of either the early dark blue butterfly's range or the late dark blue butterfly's range. A detailed discussion of the basis for this finding can be found in the species assessment form for the early and late dark blue butterflies and other supporting documents (see **ADDRESSES**, above).

### *Southern Rubber Boa*

#### Previous Federal Actions

On July 11, 2012, we received a petition from CBD requesting that the Service list 53 amphibians and reptiles in the United States, including the southern rubber boa, as an endangered or threatened species and designate critical habitat for these species under the Act. We published a 90-day finding on 25 species, including the southern rubber boa, in the *Federal Register* on September 18, 2015 (80 FR 56423), in response to the petition. We determined in our 90-day finding that the petition presented substantial scientific or commercial information indicating that listing may be warranted for 23 species, including the southern rubber boa. This document announces the 12-month finding on the July 11, 2012, petition to list the southern rubber boa under the Act.

#### Summary of Finding

The southern rubber boa is one of six rubber boas of the genus *Charina* that reside within the Boidae family, aptly named because they have skin that folds in a way that resembles rubber. The southern rubber boa is a stout-bodied snake with a short, blunt tail; measures between 13 and 21 inches (35 and 55 centimeters); and may live over 60 years in the wild. It is historically and currently known exclusively from the higher elevations within the San Bernardino Mountains and San Jacinto Mountains of southern California, in San Bernardino and Riverside Counties, California. Each mountain range is believed to support a single population, as there are no clear separations in the species' distribution within each mountain range. The species is fossorial (burrows), nocturnal, and only infrequently active aboveground.

Southern rubber boa habitat is characterized as montane forest with relatively high humidity, well-developed soil, woody canopy openings, and piles or outcroppings of granitic rock formations. The species uses rock outcroppings, as well as existing rodent burrows, as winter hibernacula—warm areas that allow boas to remain protected underground from predators and winter weather. Deep rock crevices and area beneath large rocks are also used throughout the year for basking at night, or when they are not searching for mates or prey such as juvenile rodents, insects, and lizard eggs. Approximately 88 percent of the species' range, as quantified by our examination of modeled habitat, occurs on public or conserved lands owned and managed by the San Bernardino National Forest, the Bureau of Land Management, the State of California, and local governments and conservancies; thus, the species is protected from large-scale habitat loss. The southern rubber boa's resource needs reflect the species' reliance on moisture; their nocturnal habits; and the importance of shelters for hibernation, gestation, basking under cover, and humidity. Habitat and demographic needs include appropriate humidity, sufficient prey, appropriate gestation sites and shelter, mate availability and adult abundance, and adequate habitat diversity.

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to the southern rubber boa, and we evaluated all

relevant factors under the five listing factors in the Act, including any regulatory mechanisms and conservation measures addressing these threats. We evaluated both San Bernardino and San Jacinto mountain range populations, including, for the purposes of our analysis, evaluating the San Bernardino Mountains population as consisting of an eastern and a western subpopulation.. The primary threats to the southern rubber boa are (1) the loss, degradation, or modification of habitat from drying conditions, and (2) loss of individuals, with the most significant sources of these threats for both individual southern rubber boa losses and species' habitat impacts resulting from changing climate conditions (i.e., drought, increased temperatures), wildfire, and rock pile disturbance from snake collectors and field hobbyists. Other less significant sources of threats that could also result in loss, degradation, or modification of habitat, and loss of individuals, include development/land use change, recreation, infrastructure and forest management, and resource extraction.

After evaluation of impacts from current threats on habitat and demographic needs, we determined that each of the three analysis units (western San Bernardino Mountains subpopulation, eastern San Bernardino Mountains subpopulation, and San Jacinto Mountains population) consist of moderately to highly resilient populations/ subpopulations that are likely to be able to withstand normal year-to-year variations in environmental conditions such as temperature changes; periodic disturbances within the normal range of variation such as wildfire; and normal variation in demographic rates such as mortality and fecundity. The best available information indicates the southern rubber boa is also able to withstand catastrophic events within each of the analysis units, and has the ability to adapt to environmental changes, such as changes to climate or habitat conditions. At this time, the best available information (based on our assumptions given significant unknowns surrounding the species and its response to changing habitat conditions) indicates an overall high likelihood that the species will continue to maintain resilient populations in the foreseeable future, particularly in light of significant conservation afforded the species across its range.

Therefore, we find that listing the southern rubber boa as an endangered or threatened species under the Act is not warranted. Furthermore, we did not find any evidence of a concentration of threats at a biologically meaningful scale in any portion of the species' range. A detailed discussion of the basis for this finding can be found in the southern rubber boa species assessment form and other supporting documents (see **ADDRESSES**, above).

### *Virgin Spinedace*

#### Previous Federal Actions

On November 20, 2012, the Service received a petition from CBD to list the Virgin spinedace as endangered or threatened under the Act. On September 18, 2015, we published a 90-day finding in the *Federal Register* in which we determined that the petition presented substantial scientific or commercial information indicating that listing the Virgin spinedace may be warranted (80 FR 56423). On March 16, 2016, CBD filed a complaint alleging failure to complete a 12-month finding for the species. On August 30, 2016, we entered into a settlement agreement, in which we committed to submitting a 12-month finding to the *Federal Register* by September 30, 2021. This document announces the 12-month finding on the November 20, 2012, petition to list the Virgin spinedace under the Act and fulfills our settlement agreement obligations.

#### Summary of Finding

The Virgin spinedace is a small freshwater minnow found in the mainstream Virgin River and its tributaries in southwestern Utah (Washington County), northwestern Arizona (Mohave County), and southeastern Nevada (Lincoln County). The species' current distribution is approximately 222 kilometers (138 miles), which is 95 percent of its historical distribution.

The Virgin spinedace is adapted to a highly variable western stream hydrology with intermittent drying. Its resource needs include stream reaches of sufficient length to maintain a population, adequate perennial flow, unimpeded fish passage, suitable habitat (presence of pools, runs, and riffles), suitable water quality, sufficient food base, and absence of predators and

competitors. The species is an opportunistic feeder, but primarily feeds on insects.

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to the Virgin spinedace, and we evaluated all relevant factors under the five listing factors, including any regulatory mechanisms and conservation measures addressing these stressors. The primary stressors affecting the Virgin spinedace's biological status include reduced streamflow, impeded fish passage, habitat destruction, poor water quality, nonnative fish predators/competitors, and climate change. We conducted a population-specific analysis of the environmental conditions that negatively affect individuals or populations of the Virgin spinedace, as well as conservation efforts that ameliorate those stressors. The Virgin spinedace currently exhibits good resiliency, redundancy, and representation. We anticipate maintaining good or fair levels of resiliency, redundancy, and representation in the foreseeable future across a range of future scenarios. There was no concentration of stressors in any significant portion of the species' range sufficient to cause the species to likely become in danger of extinction in the foreseeable future. Our conclusions are supported by the fact that since the Virgin Spinedace Conservation Assessment and Strategy was implemented in 1995, the distribution of the species has increased to within 95 percent of its historical distribution. Implementation of the Virgin Spinedace Conservation Assessment and Strategy is ongoing and involves Federal, State, and local partners.

Therefore, we find that listing the Virgin spinedace as an endangered species or threatened species under the Act is not warranted. Furthermore, we did not find any evidence of a concentration of threats at a biologically meaningful scale in any portion of the species' range. A detailed discussion of the basis for this finding can be found in the Virgin spinedace species assessment form and other supporting documents (see **ADDRESSES**, above).

#### *New Information*

We request that you submit any new information concerning the taxonomy of, biology of, ecology of, status of, or stressors to Amargosa tryonia, Ash Meadows pebblesnail, boat-

shaped bugseed, Burrington jumping-slug, crystal springsnail, Dalles sideband, distal-gland springsnail, early dark blue butterfly, Fairbanks springsnail, late dark blue butterfly, median-gland springsnail, minute tryonia, Point of Rocks tryonia, southern rubber boa, southwest Nevada pyrg, sportinggoods tryonia, or Virgin spinedace to the appropriate person, as specified under **FOR FURTHER INFORMATION CONTACT**, whenever it becomes available. New information will help us monitor these species and make appropriate decisions about their conservation and status. We encourage local agencies and stakeholders to continue cooperative monitoring and conservation efforts.

### **References Cited**

A list of the references cited in this petition finding is available in the relevant species assessment form, which is available on the Internet at <http://www.regulations.gov> in the appropriate docket (see **ADDRESSES**, above) and upon request from the appropriate person (see **FOR FURTHER INFORMATION CONTACT**, above).

### **Authors**

The primary authors of this document are the staff members of the Species Assessment Team, Ecological Services Program.

### **Authority**

The authority for this action is section 4 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

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**Martha Williams**

*Principal Deputy Director*

*Exercising the Delegated Authority of the Director*

*U.S. Fish and Wildlife Service*

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